

**MDX-DRAM32A
ERRATA
TO
MDX-DRAM OPERATIONS MANUAL
MK79624**

**NOVEMBER 1980
MK79976**

MDX-DRAM32A

MK77761

ERRATA

The following need to be corrected as shown on the next pages:

1. LIST OF TABLES page iii
2. Paragraph 1.1.1 page 1-1
3. Paragraph 1.3 page 1-3
4. Paragraph 3.2 (including Table 3-1 page 3-1. Notice that there is a new paragraph 3.2.2 to be added.
5. MDX-DRAM32 PARTS LIST, to be replaced by MDX-DRAM32A PARTS LIST
6. MDX-DRAM32-4 PARTS LIST, to be replaced by MDX-DRAM32A-4 PARTS LIST

LIST OF TABLES

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1.1.1 The MDX-DRAM is designed to be a RAM memory expansion board for the MOSTEK MD SERIES of Z-80 based microcomputers. It is available in three memory capacities: 8K bytes (MDX-DRAM8), 16K bytes (MDX-DRAM), and 32K bytes (MDX-DRAM32A). Additionally, the MDX-DRAM16 and the MDX-DRAM32A are available in a 4MHz version. More over, the MDX-DRAM32A can be configured such that its memory elements occupying the addresses from E000H through EFFFH are unaddressable (see paragraph 3.2.2 for the use of this feature). Thus, the designer can choose from the various options to add-on dynamic RAM memory to satisfy his system requirements.

1.3 ELECTRICAL SPECIFICATIONS

WORD SIZE

8 bits

MEMORY SIZE

MDX-DRAM8 - 8,192 bytes

MDX-DRAM16 - 16,384 bytes

MDX-DRAM32A - 32,768 bytes

3.2 MEMORY DEVICE SELECTION JUMPERS

3.2.1 Table 3-1 shows how jumpers A-K are configured for the MDX-DRAM8 and MDX-DRAM16 boards.

TABLE 3-1
JUMPER CONFIGURATIONS
OF THE 8K AND 16K BYTES BOARDS

BOARD	JUMPERS
MDX-DRAM8	A to B H to K
MDX-DRAM16	B to C H to J
MDX-DRAM16-4	B to C H to J
MDX-DRAM16-8	A to B D to E H to K

3.2.2 The MDX-DRAM32A is a 32K byte board similar to the other MDX-DRAM boards, except that it has been provided with a special selection PROM (U24), which gives it the ability to be configured in two ways:

1. With 32K bytes of contiguous memory

B to C
E to F
H to J

2. With address E000H through EFFFH masked

A to B
D to E
H to J

In this way if it has a starting address which makes the addresses from E000H through EFFFH within the range of the board, these addresses will be inaccessible on the board. Thus its capacity will be reduced by 4K bytes. Otherwise all of the 32K bytes will be accessible.

This feature is necessary in case of using this board with a CPU board which has PROMs occupying these memory locations.

The MDX-DRAM32A-4 can be configured exactly like the MDX-DRAM32A.

N.B.: The jumpers A-F on the boards MDX-DRAM32A (and MDX-DRAM32A-4) are unconnected when shipped. Use the attached MINI-JUMPERS (or wire wrap straps) to configure the board in the desired way.

MDX-DRAM32A PARTS LIST

PART NO.	QTY	DESCRIPTION	REFERENCE DESIGNATOR	USED ON
0000000		PARTS LIST MDX-DRAM32A		77761
0000000		ASSY 450-00361-20 REV A	MD RAM	77761
0000000		SCH 450-00362-00 REV F	MD RAM	77761
4610113	1	FAB 450-00360-10 REV F	MD RAM	77761
4150111	28	CAPACITOR .1 UF	C1-22,25,26,28,29,30,31	77761
4150140	3	CAPACITOR 15 UF	C23,24,27	77761
4480047	1	DIODE 1N751	CR1	77761
4280007	11	STAKE PINS	EA-J,E1,E2	77761
4470037	2	RESISTOR 33 OHMS	R1,3	77761
4470063	1	RESISTOR 390 OHMS	R2	77761
4313439	16	IC MK4116-4	U1-16	77761
4313507	1	IC, 74LS244	U17	77761
4313264	2	IC, 74S157	U18,25	77761
4313284	3~	IC, 74S00	U19,20,27	77761
4313574	1	IC DELAY LINE 150NS	U21	77761
4313266	1	IC, 74S74	U22	77761
4313544	1	IC, 74LS373	U23	77761
4316011	1	IC MK6280 (MM16300)	U24	77761
4313329	1	IC, 74S10	U26	77761
4640006	1	SWITCH DIP 4 POS	U28	77761
4313291	4	IC, 74SL14	U29,30,31,32	77761
4470175	1	RESISTOR SIP 10 P. 4.7K	UR1	77761
4470246	2	RESISTOR SIP 8 PIN 33	UR2,3	77761
4470178	2	RESISTOR SIP 6 PIN 1K	UR4,5	77761
4620017	17	SOCKET 16 PIN	X1-16,X24	77761
4280155	1	EJECTOR	Z	77761
5025266	1	TRAVELER WIP	Z:NOTE IN HOUSE USE ONLY	77761
5013004	2	BAG ANTISTATIC	Z:SHIPPED NOT ASSEMBLED	77761
5013206	1	BOX SHIPPING	Z:SHIPPED NOT ASSEMBLED	77761
MK79624	1	MDX-DRAM OPS. MANUAL	Z:SHIPPED NOT ASSEMBLED	77761
MK79728	1	WARRANTY REGISTRATION	Z:SHIPPED NOT ASSEMBLED	77761
MK79869	1	SERVICE CENTER POLICY	Z:SHIPPED NOT ASSEMBLED	77761
4210244	5	MINI JUMPER	Z:SHIPPED NOT ASSEMBLED	77761
5013111	1	SMALL PLASTIC BAG	Z:SHIPPED NOT ASSEMBLED	77761

ACCEPTABLE IC SUBSTITUTION

MK4116-4 (P/N 4313439) MAY BE REPLACED BY MK4116-3, MK4116-2, OR MK4116-1

MDX-DRAM32A-4 PARTS LIST

PART NO.	QTY	DESCRIPTION	REFERENCE DESIGNATOR	USED ON
0000000		PARTS LIST MDX-DRAM32A		77761-4
0000000		ASSY 450-00361-21 REV A	MD RAM	77761-4
4610113	1	SCH 450-00362-00 REV F	MD RAM	77761-4
4150111	28	FAB 450-00360-10 REV F	MD RAM	77761-4
4150140	3	CAPACITOR .1 UF	C1-22,25,26,28,29,30,31	77761-4
4480047	1	CAPACITOR 15 UF	C23,24,27	77761-4
4280007	11	DIODE 1N751	CR1	77761-4
4470037	2	STAKE PINS	EA-J,E1,E2	77761-4
4470063	1	RESISTOR 33 OHMS	R1,3	77761-4
4313439	16	RESISTOR 390 OHMS	R2	77761-4
4313507	1	IC MK4116-2	U1-16	77761-4
4313264	2	IC, 74LS244	U17	77761-4
4313284	3	IC, 74S157	U18,25	77761-4
4313744	1	IC, 74S00	U19,20,27	77761-4
4313266	1	IC DELAY LINE 100NS	U21	77761-4
4313544	1	IC, 74S74	U22	77761-4
4316011	1	IC, 74LS373	U23	77761-4
4313329	1	IC MK6280 (MMI6300)	U24	77761-4
4640006	1	IC, 74S10	U26	77761-4
4313291	4	SWITCH DIP 4 POS	U28	77761-4
4470175	1	IC, 74SL14	U29,30,31,32	77761-4
4470246	2	RESISTOR SIP 10 P. 4.7K	UR1	77761-4
4470178	2	RESISTOR SIP 8 PIN 33	UR2,3	77761-4
4620017	17	RESISTOR SIP 6 PIN 1K	UR4,5	77761-4
4280155	1	SOCKET 16 PIN	X1-16,X24	77761-4
5025266	1	EJECTOR	Z	77761-4
5013004	2	TRAVELER WIP	Z:NOTE IN HOUSE USE ONLY	77761-4
5013206	1	BAG ANTISTATIC	Z:SHIPPED NOT ASSEMBLED	77761-4
MK79624	1	BOX SHIPPING	Z:SHIPPED NOT ASSEMBLED	77761-4
MK79728	1	MDX-DRAM OPS. MANUAL	Z:SHIPPED NOT ASSEMBLED	77761-4
MK79869	1	WARRANTY REGISTRATION	Z:SHIPPED NOT ASSEMBLED	77761-4
4210244	5	SERVICE CENTER POLICY	Z:SHIPPED NOT ASSEMBLED	77761-4
5013111	1	MINI JUMPER	Z:SHIPPED NOT ASSEMBLED	77761-4
		SMALL PLASTIC BAG	Z:SHIPPED NOT ASSEMBLED	77761-4

ACCEPTABLE IC SUBSTITUTION
 MK4116-2 (P/N 4313439) MAY BE REPLACED BY MK4116-1